

Amendments to the Specification

Please replace paragraph 30 with the following amended paragraph:

In one embodiment, referring to FIG. 5, each sector of an optical disc 100 is retrieved successively to be a block of data and block indexes are assigned to each block of data in sequence. In the other hand, the memory is divided into two banks, i.e. $N=2$, and blocks of each bank is configured to fit size of the block of data. The operation of Pipe(a) is as follows, for example, sector 102 is retrieved to be a block of data 202 and assigned a block index 0, mapping block index 0 to physical address 302, storing the block of data 202 into the memory block located at the physical address 302, and repeating these steps again for successively sectors. For instance, sector 104 is retrieved to be a block of data 204 and assigned a block index 1, mapping block index 1 to physical address $[[304]]$ 308, storing the block of data 204 into the memory block located at the physical address $[[304]]$ 308; sector 106 is retrieved to be a block of data $[[206]]$ 208 and assigned a block index 2, mapping block index 2 to physical address 306, storing the block of data $[[206]]$ 208 into the memory block located at the physical address 306; sector 108 is retrieved to be a block of data $[[208]]$ 206 and assigned a block index 3, mapping block index 3 to physical address $[[308]]$ 304, storing the block of data $[[208]]$ 206 into the memory block located at the physical address $[[308]]$ 304. The steps from the retrieving step to the storing step for rest sectors of the optical disc 100 are similar to the above explanation and correlation graphical representation, therefore no longer gives unnecessary detail in this.

Please replace paragraph 32 with the following amended paragraph:

Dividing the block index by 2 to obtain a quotient Q and a remainder R and calculating the physical address based on Q and R, wherein the physical address= $Q*\text{block_size}+R*\text{bank_size}$. For example, dividing the block index 0 by 2 to

obtain a quotient $Q=0$ and a remainder $R=0$, calculating the physical address based on $Q=0$ and $R=0$ by using the formula, the physical address= $Q*\text{block_size}+R*\text{bank_size}$, wherein the $\text{bank_size}=\text{memory size}/2$, and the $\text{block_size}=\text{the size of one sector of the optical disc}$, and the result, the physical address 302, is located at the Bank(0). In the same reason, for the sector 104, dividing the block index 1 by 2 to obtain a quotient $Q=0$ and a remainder $R=1$, calculating the physical address based on $Q=0$ and $R=1$ by using the formula, and the result, the physical address 308, is located at the Bank(1). The steps for the others sector are the similar to the above explanation and correlation graphical representation, therefore no longer gives unnecessary detail in this.

Please replace paragraph 36 with the following amended paragraph:

Referring to FIG. 7, it is a schematic diagram for displaying an apparatus according to the present invention. FIG. 7 includes an apparatus 300 provided by this invention, a source media 702, a pick-up head 704 coupled to the source media, a processor 706 coupled to the pick-up head 704, and a SDRAM 708 coupled to the processor 706. The apparatus 300 comprises a counter 3002, a divider 3004 coupled to the counter 3002, and a calculating module 3006 coupled to the divider 3004. When the pick-up head 704 retrieves a block of data from the source media 702, the counter 3002 generates an index for the block of data at the same time. The index is divided by the bank number N for acquiring a quotient Q and a remainder R in the divider 3004, wherein the bank number N is provided by the outside signal, for example, the processor of a PC. The calculating module 3006 calculates the physical address based on the quotient Q , the remainder R , bank_size and block_size , wherein bank_size and block_size are defined by programming according to system configuration. In addition, the calculating module 3006 comprises a plurality of logic gates to implement a reference function to calculate the physical address, for instance, the

reference function is "the physical address= $Q \times \text{block_size} + R \times \text{bank_size}$ ". Finally, the processor [[306]] 706 stores the block of data into the SDRAM [[308]] 708 according to the physical address received from the calculating module 3006.